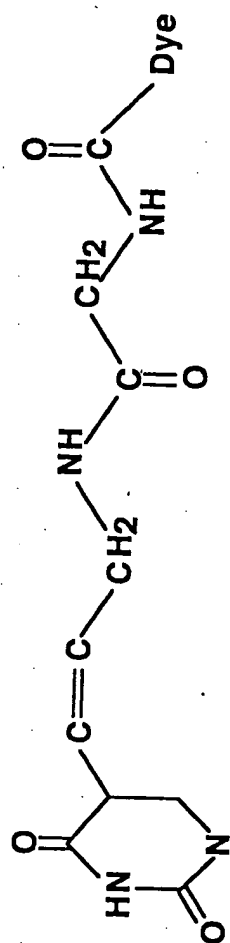


Diglycinyllinker



Tetraglycinyllinker

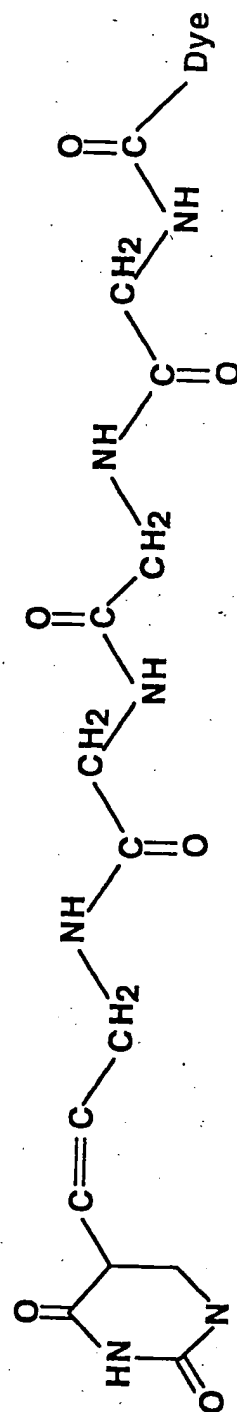
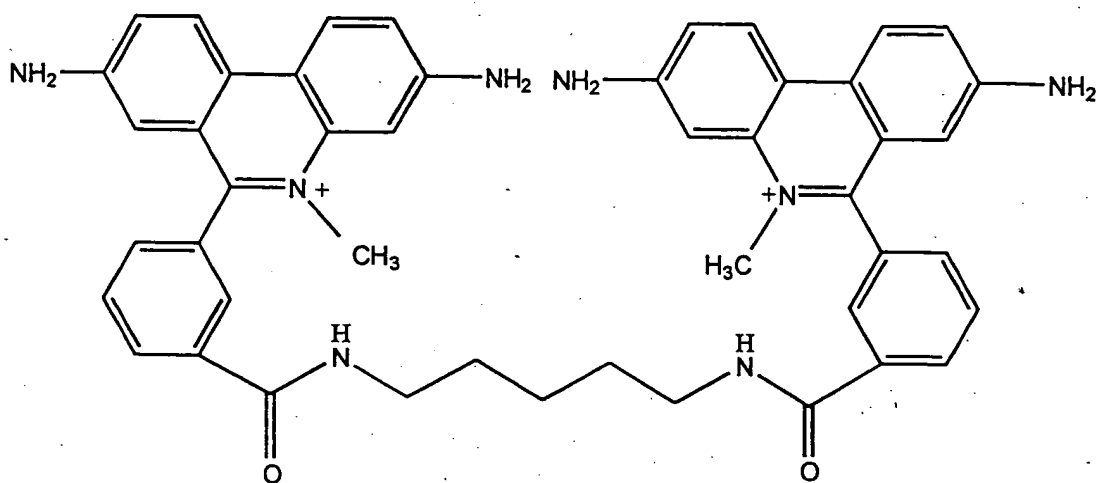
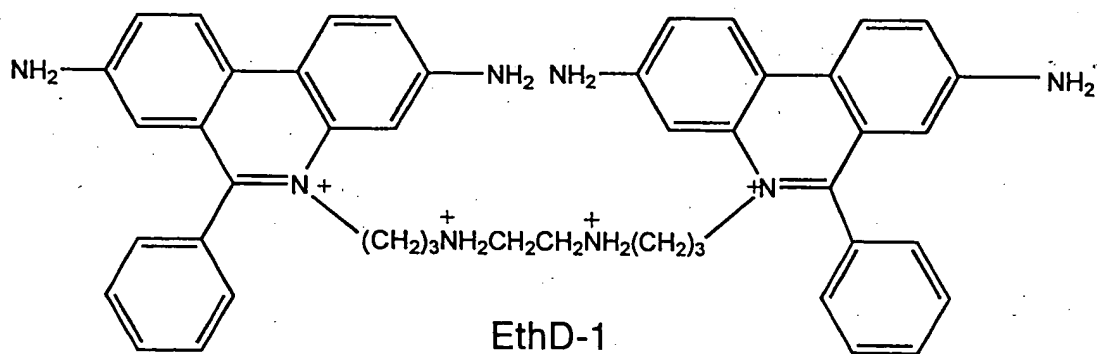


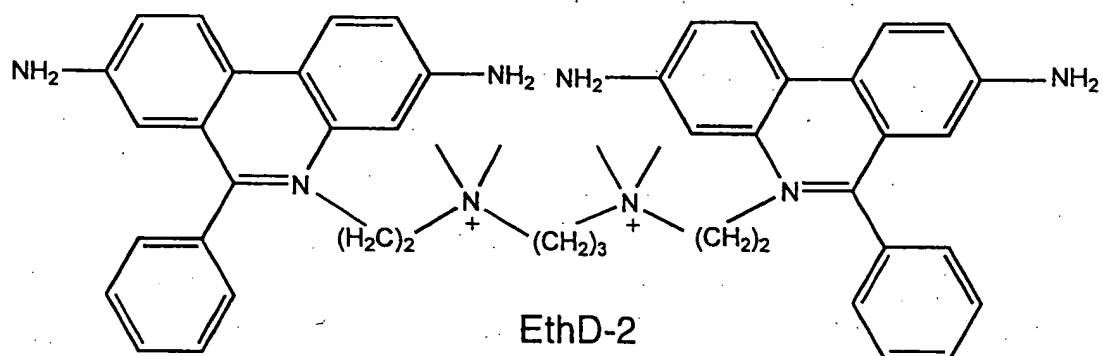
Figure 1



*meta*-EthD

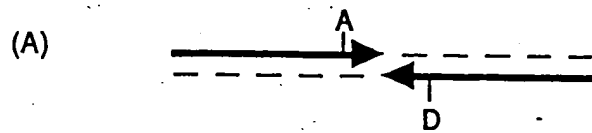


EthD-1



EthD-2

Figure 2



A = Energy Acceptor

D = Energy Donor

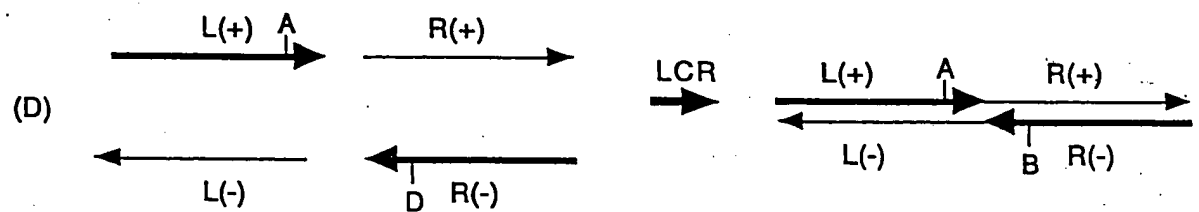
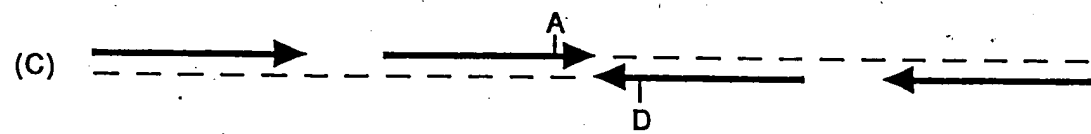
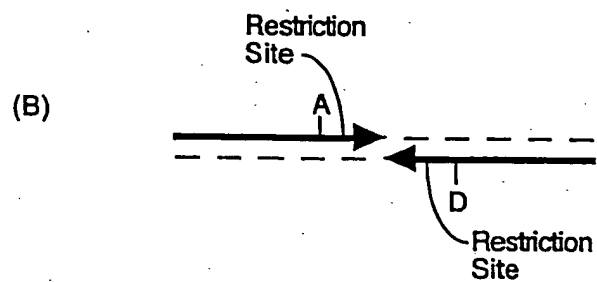


Figure 3

Target Sequence

——GCGACCTGCGAATGCTATGGATCAGGCTAGCCA——  
——CGCTGGACGCTTACGATACCTAGTCCGATCGGT——

(A)

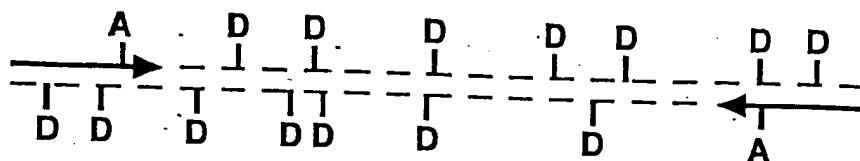
Donor  
→  
GCGACCTGCGAATGCTATggatcaggctagcca  
cgctggacgcttacgataCCTAGTCCGATCGGT  
←  
Acceptor

(B)

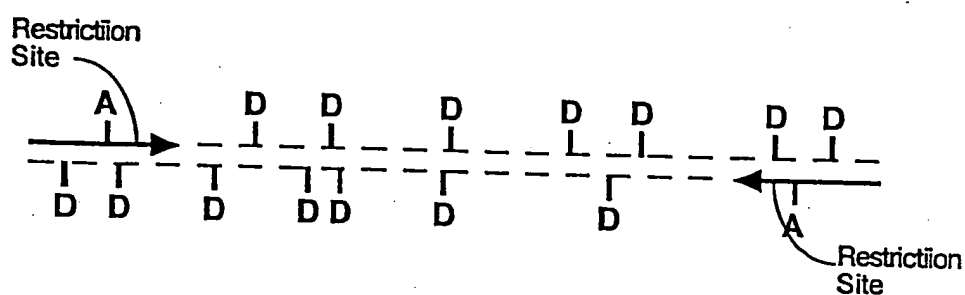
Donor  
→  
GCGACCTGCGAATGCTATggatcaggctagcca  
cgctggacgcttacgatacctAGTCCGATCGGT  
←  
Acceptor

Figure 4

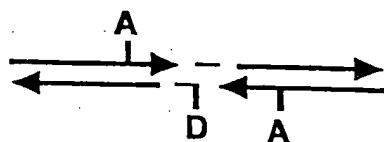
(A) PCR



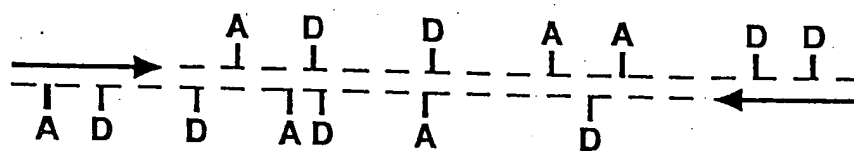
(B) SDA



(C) GAP-LCR



(D) PCR

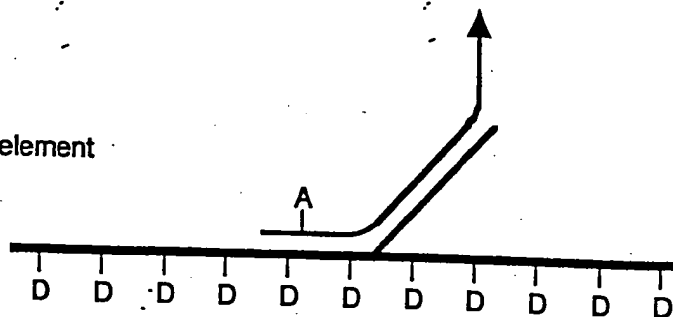


A = Energy Acceptor

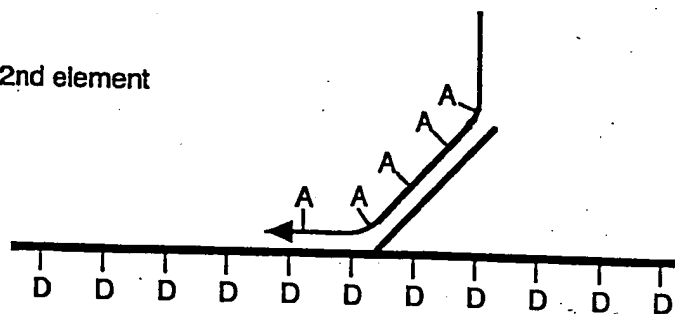
D = Energy Donor

Figure 5

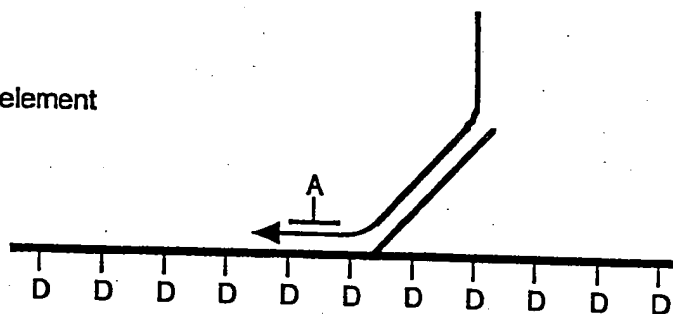
(A) Primer with 2nd element



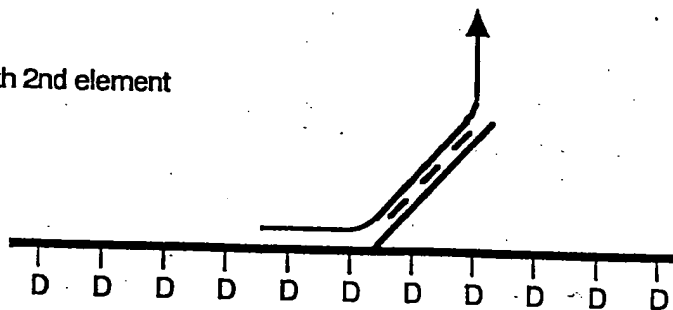
(B) Nucleotide with 2nd element



(B) Probe with 2nd element



(B) Intercalators with 2nd element



D = Energy Donor  
A = Energy Acceptor

Figure 6

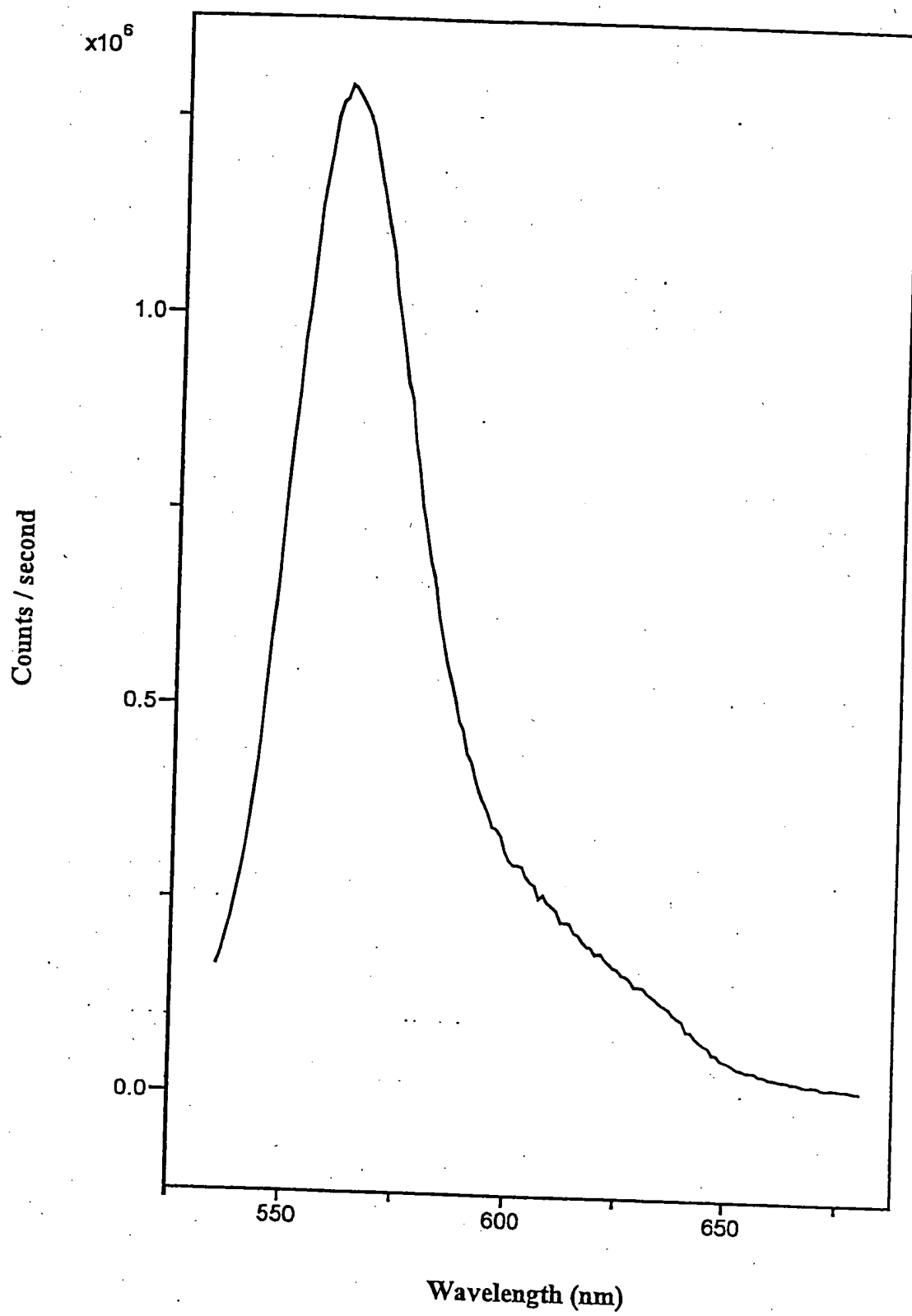


Figure 7

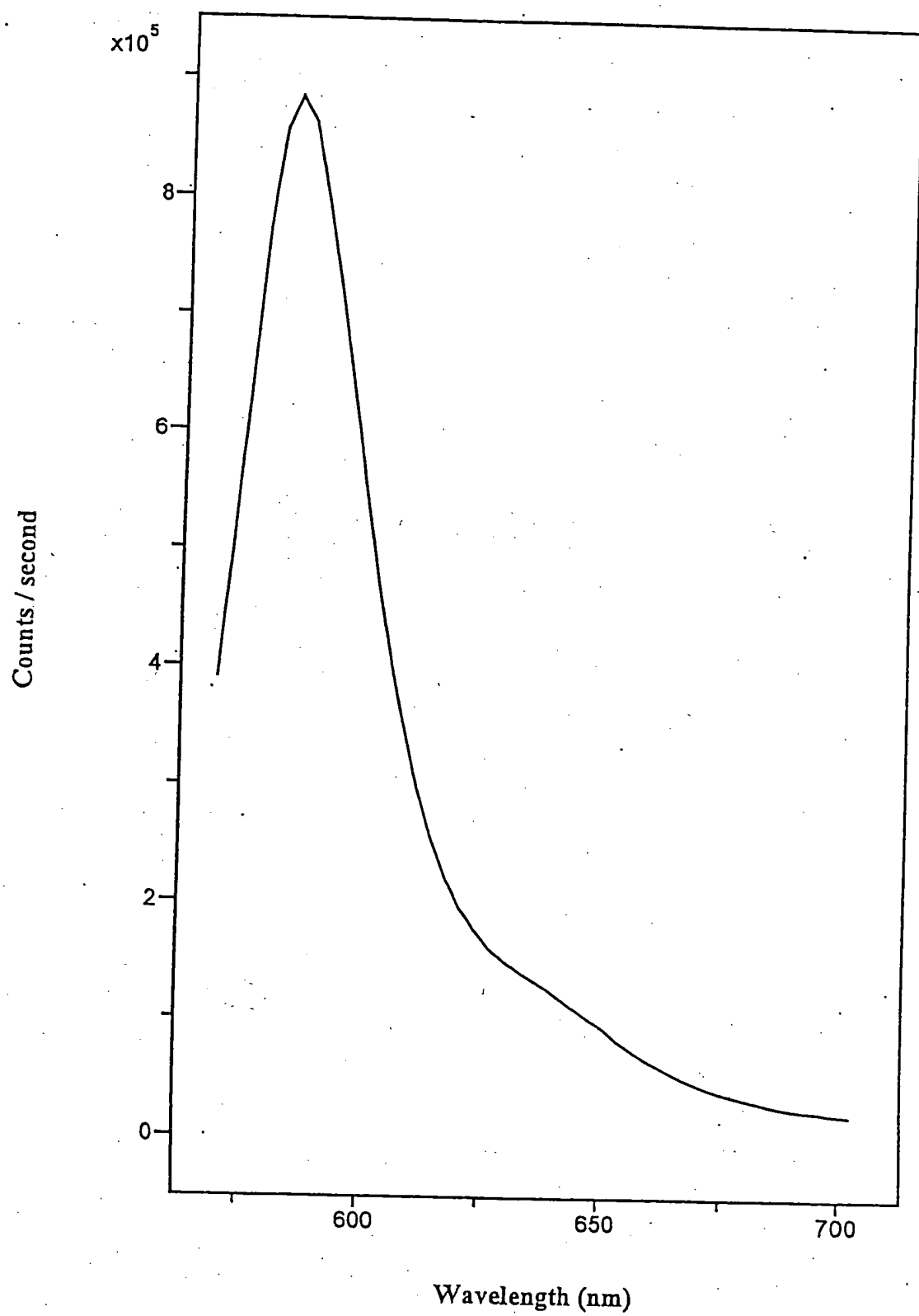
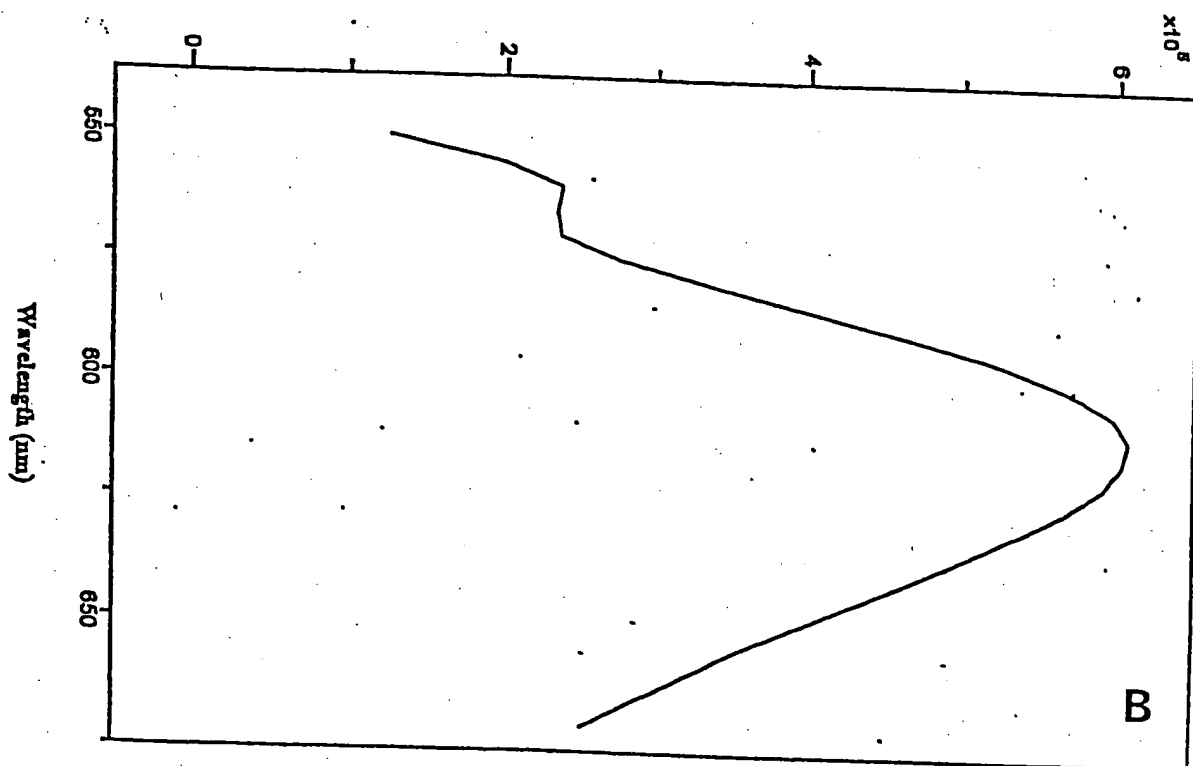
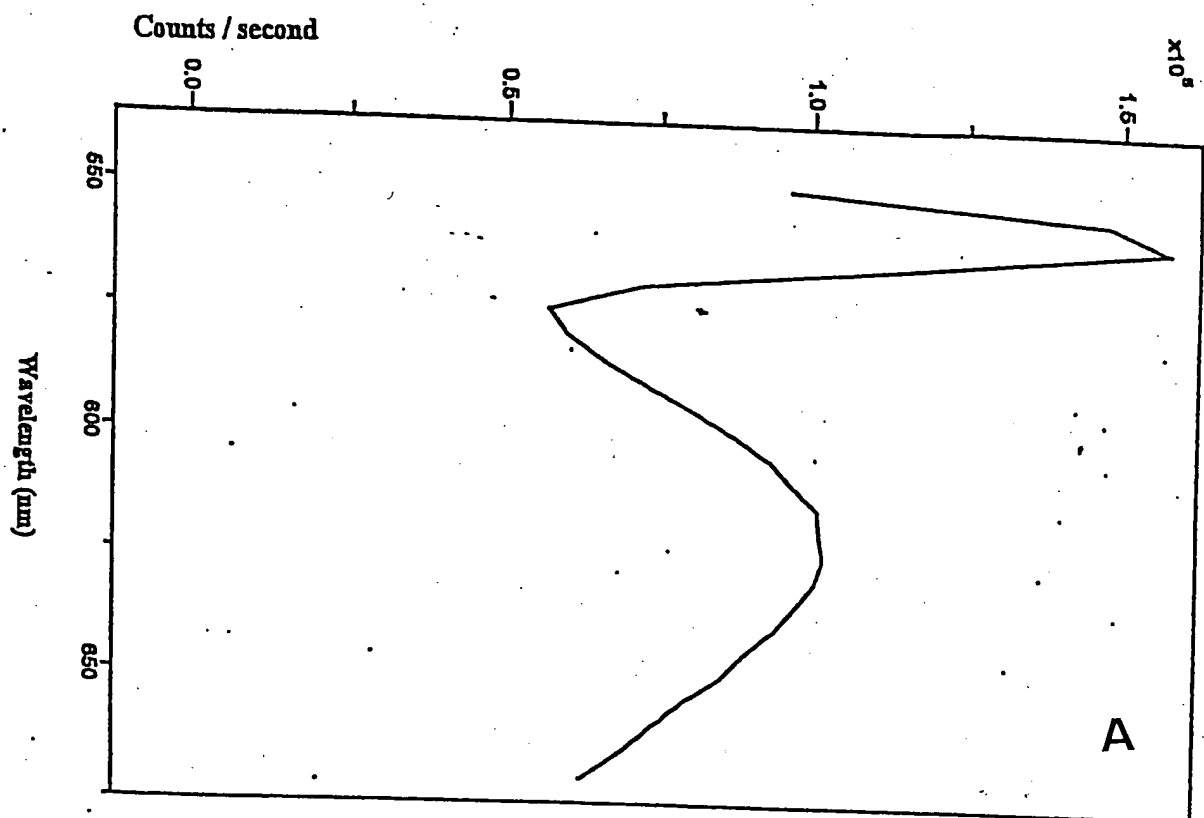


Figure 8







Illumination at 472 nM  
Figure 10

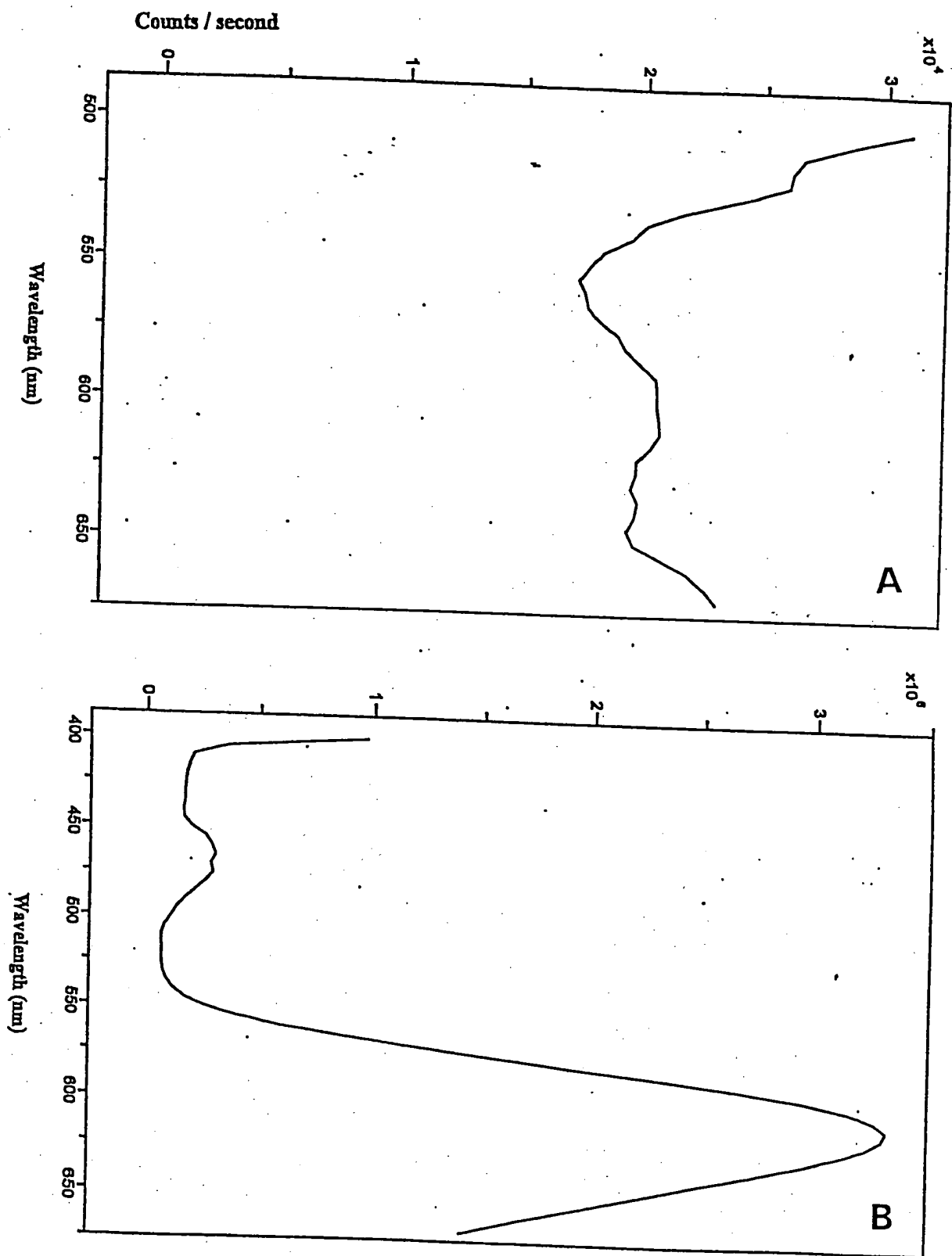


Figure 11

# HIV Anti-sense Amplicon

Forward Primer

catgatccgg atgggagggtg →

Hybridization Probe


taatgggtg agtatccctg cctaactct →\*

catgatccgg atgggagggtg ggtctgaaac gataatgggtg agtatccctg cctaactcta ttcactatcc ggatgtgc  
gtactaggcc taccctccac ccagactttg ctattaccac tcataggac ggattgagat aagtgatagg cctacacg

← agat aagtgatagg cctacacg

Reverse Primer

Figure 12

[illegible]

Q = Inosine (ribonucleotide)

mRNA  
—————AAAAAAAAAAAAA-3'  
UUUUUUUUUUUTTTTQQQQQQQQQ

Reverse Transcriptase

mRNA  
 —————AAAAAAAAAAAAAAAAACCCCCC-3'  
 UUUUUUUUUUUTTTTQ0000000

#### D) Removal of CNAC and binding of primer with promoter sequence

Figure 13

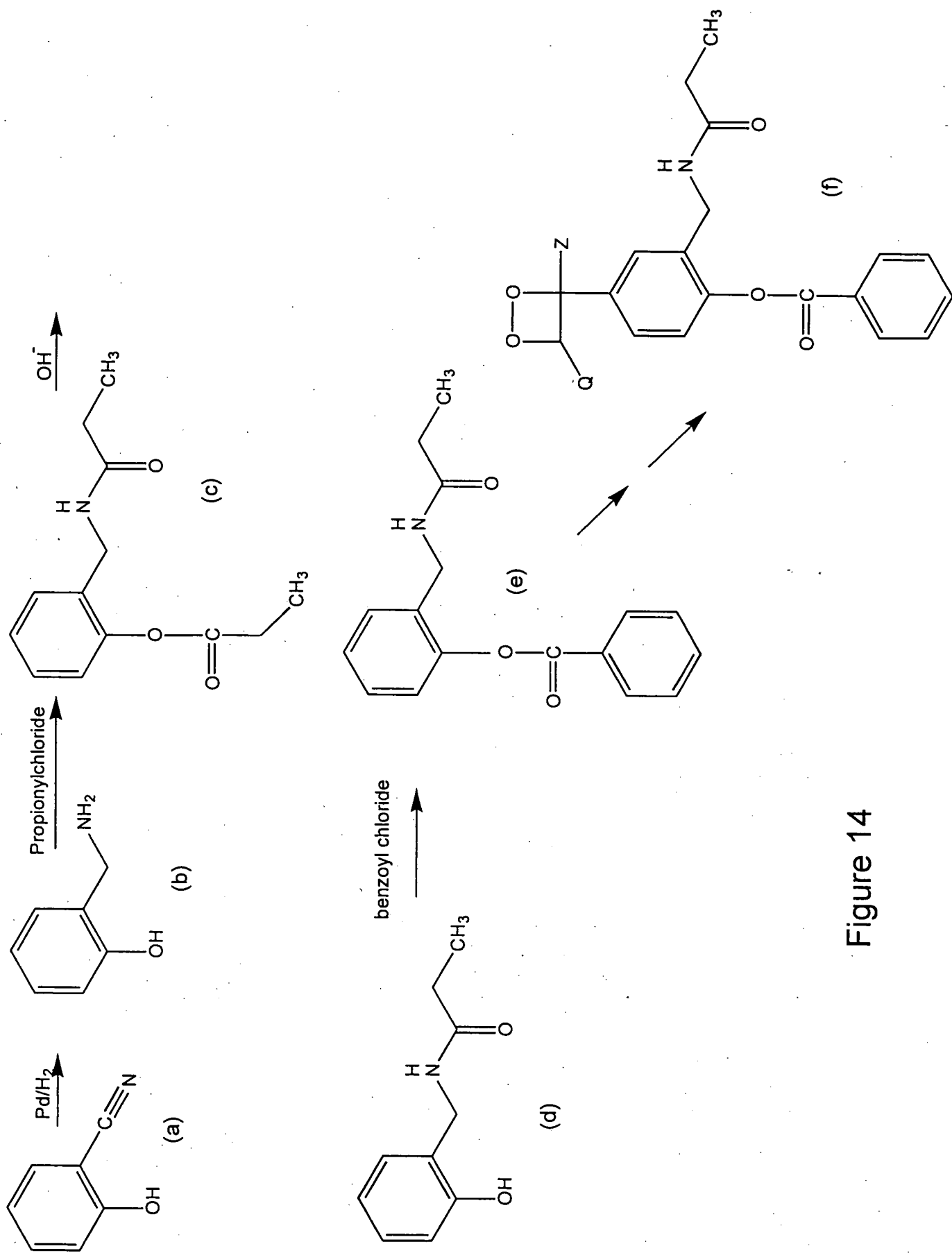


Figure 14

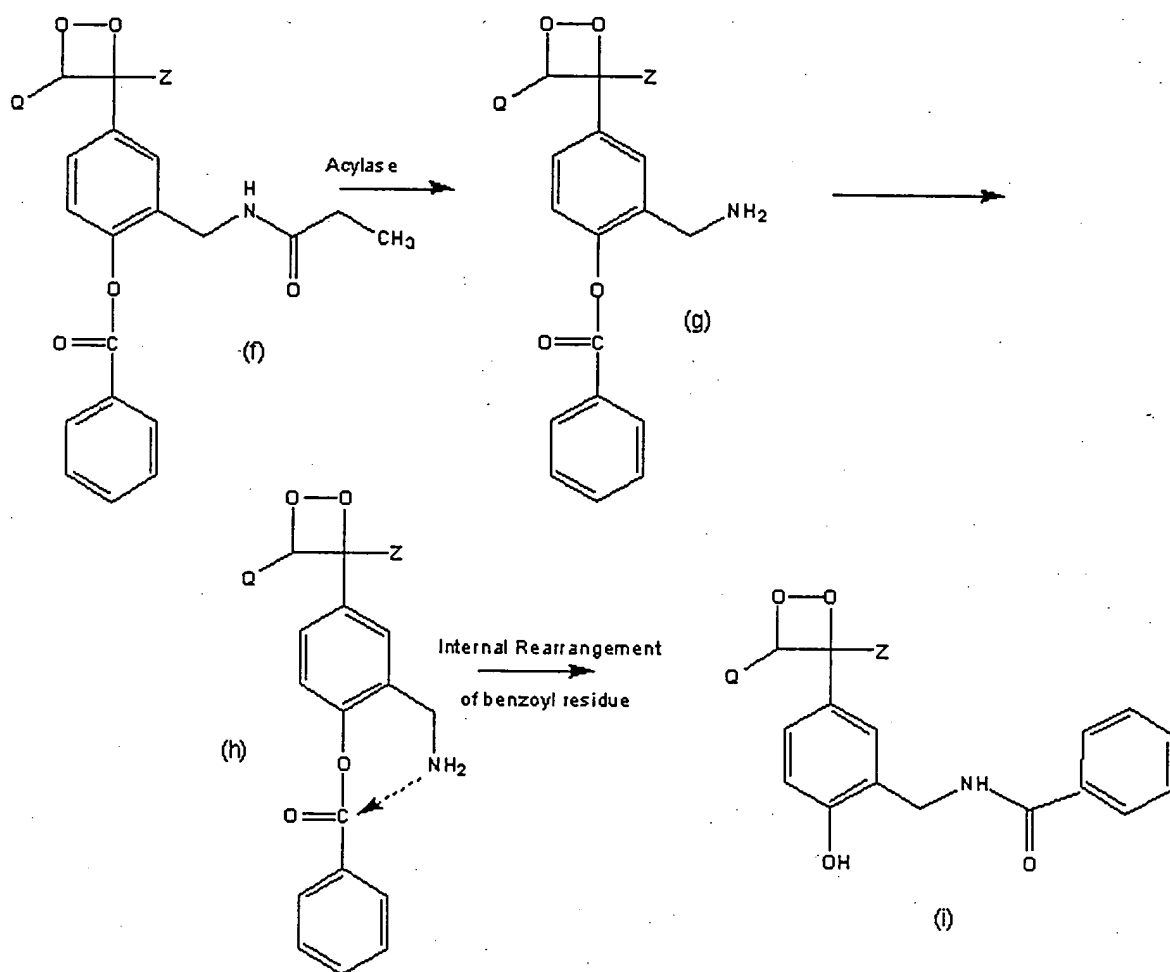


Figure 15